

Serial No: 10/012,459

Docket No: K-0355

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCE

In re Application of

Confirmation No: 7276

Yong Hyun AN and Yi Sik CHAE

Group Art Unit: 2617

Serial No: 10/012,459

Examiner: Matthew C. Sams

Filed: December 12, 2001

Customer No: 34610

For: INFORMATION SERVICE SYSTEM AND OPERATION METHOD
THEREOF

REPLY BRIEF

U.S. Patent and Trademark Office
Customer Window, Mail Stop Appeal Brief-Patents
Randolph Building
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Alexandria, Virginia 223134

Sir:

This Reply Brief is submitted in response to the Examiner's Answer issued on May 14, 2008, in connection with the above-identified application.

STATUS OF THE CLAIMS

Claims 1, 2, 4-6, 9-15, 19-22, 35-37, 39-44, 46-48, and 50 have been rejected at least twice and are the subjects of this appeal. Claims 3, 7, 8, 16-18, 23-34, 38, 45, and 49 have been canceled. A complete copy of the claims on appeal was included in an attachment to the Appeal Brief.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, 4-6, 9-15, 19-22, 35-37, 39-45, and 47-50 stand rejected under 35 USC § 103(a) for being obvious in view of the Shteyn patent (USP 6,782,253) taken in combination with the Johnson patent (USP 6,456,234).

ARGUMENT

Appellants submit that the rejections in the Office Action issued on July 27, 2007, are improper even in view of the arguments set forth in the Examiner's Answer.

Independent Claim 1

In the system of claim 1, the sudden information data transmission device radio-transmits a second type of information including sudden event information to a customer's mobile terminal when a sudden event is generated by one of plurality of shops in a building. In connection with this function, claim 1 further recites that the operation server performs the functions of:

- 1) "continuously receiving information derived from reception by a mobile communication network of a pilot signal from the customer's terminal to confirm a location of the customer within the building,
- 2) said confirmation serving as a pre-condition to transmitting the sudden information to the customer's terminal."

In the Examiner's Answer, features 1) and 2) were considered together as a single limitation and the Johnson patent was relied on to supply these features. Whether 1) and 2) are considered as a single limitation or not, Johnson does not teach or suggest the above-noted features of claim 1. At columns 2, 7, 10, and 11 (cited by the Examiner), Johnson discloses monitoring the location of a mobile terminal based on positional attributes of that terminal.

However, in all cases the position of the Johnson terminal monitors terminal location using a triangulation technique.

Johnson does not teach or suggest the use of a pilot signal in a mobile communication network to determine the location of a customer's terminal near, for example, a specific store inside of a mall as required by claim 1. That is, while it is true Johnson has a cellular-network embodiment (see column 7, lines 25-26), Johnson does not teach or suggest using a pilot signal for the purpose of determining whether a customer's terminal is near a particular store in a mall (e.g., "the building").

On this point, Appellants submit that there are a variety of ways to determine the general location of a phone. One way is mentioned in the Johnson patent. This is achieved through a triangulation method. According to this method, a customer terminal location is determined relative to three base stations and then that location is supplied to the Johnson system. The Johnson patent expressly teaches that triangulation is the way in which it determines that a cellular phone is near a Starbucks. (See column 8, lines 66-67 as well as subsequent portions of the specification). In fact, all embodiments disclosed in Johnson determine location in this way, i.e., triangulation.

The Johnson triangulation method, therefore, is like many of the GPS-based systems available on the market today. (In fact, see column 11, lines 20-25). None of these systems, including the ones in Johnson, rely on a pilot signal to determine the location of a customer's terminal and specifically to determine whether that terminal is near a particular store inside of a

mall. (Such a pilot-signal-based determination may be performed, for example, by measuring the signal strength of the pilot signal.¹ Such a technique may require only one base station, not the three base stations that are required by Johnson. The technique employed by the claimed invention may therefore be more computationally efficient and require must less hardware to implement in terms of mobile communication resources. These features and advantages are not achieved by the triangulation method of Johnson.)

In addressing these issues, the Examiner indicated that Appellants' arguments are frivolous (see page 16 of the Examiner's Answer) because there is no indication in the claim language of how the pilot signal is specifically used. But, Appellants submit that the claims are not required to be limited to any specific technique that uses a pilot signal in order to establish patentability. Rather, the use of a specific technique more appropriately goes to how the invention may be reduced to practice. Appellants' have given one non-limiting example above. The claims, however, need not be limited to this specific technique for purposes of establishing non-obviousness.

Appellants invention as claimed employs a different technique for determining the location of a customer terminal. That technique involves continuously monitoring a pilot signal transmitted to a mobile communication network, for purposes of determining the location of the terminal in a building such as a mall, and moreover for determining whether, for example, that

¹ Applicants submit that this technique is merely one of many ways in which a pilot signal may be used to determine terminal location in the claimed invention. This particular technique, therefore, should not be held to be limiting of the claims.

location is near a particular store in the mall. The Johnson patent and the other references of record do not teach or suggest these features.

Regarding the Examiner's arguments on page 16, lines 17-22, regardless of the type of triangulation employed, all triangulation requires the use of three base stations. In contrast, the pilot signal approach may not require three base stations but only one. Thus, Appellants submit that this ground of rejection by the Examiner is insufficient for purposes of establishing the propriety of the rejection.

Thus, by using triangulation the Johnson does not teach or suggest confirming the location of a customer's mobile terminal within a building by "continuously receiving information derived from reception by a mobile communication network of a pilot signal from the customer's terminal" as recited in claim 1. Moreover, claim 1 recites "said confirmation serving as a pre-condition to transmitting the sudden information to the customer's terminal." Johnson also does not teach or suggest these features.

For the foregoing reasons, Appellants submit that the § 103(a) rejection of claim 1 and its dependent claims is improper and should be reversed. Appellants further submit that the features recited in many of the other claims are not obvious in view of the cited references.

Dependent Claims 47-49

Dependent claim 47 recites that the data transmission server “automatically radio-transmits the first type of information in response to a customer request for the first type of information.”

These features are not taught or suggested by the Shteyn patent.

Shteyn discloses that beacons 402-408 are passive devices that transmit facilitation signals to customer terminals in a mall. Each of the beacons transmits this information either constantly or based on information contained in a customer profile. The Shteyn patent does not teach or suggest that the beacons transmit information on shops conditionally in response to a customer request as required by claim 47.

Johnson also fails to teach or suggest these features. In rejecting claim 47, the Examiner relied on the disclosure of User Event Management described at column 17, lines 11-24. Here, Johnson discloses transmitting information to a user in response to a user request. However, the Johnson patent does not teach or suggest the features of claim 47 in the context of claim 1, where “the first type of information” is automatically transmitted “in response to a customer request for the first type of information.”

Claim 48 recites that “the customer request is made based on the customer’s manipulation of the mobile terminal or the data transmission server.” Shteyn does not teach or suggest these features for the same reasons as noted above, and neither does Johnson. Johnson discloses transmitting information in response to a user request, but not based on a customer’s manipulation of a mobile terminal or data transmission server.

Claim 49 recites that “said request is generated based on customer manipulation of the mobile terminal of the customer or a data transmission server in the building.” These features are not taught or suggested by Shteyn and Johnson, whether taken alone or in combination.

Independent Claim 12

Claim 12 recites (1) continuously receiving information derived from reception by a mobile communication network of a pilot signal from the customer’s terminal to confirm a location of the customer within the building, (2) said confirmation serving as a pre-condition to transmitting the sudden information to the customer’s terminal. These features are similar to those which patentably distinguish claim 1 from the Shteyn and Johnson patent. Accordingly, for similar reasons, it is submitted that claim 12 and its dependent claims are not rendered obvious by a combination of these patents.

Independent Claim 22

Claim 22 recites (1) continuously receiving information derived from reception by a mobile communication network of a pilot signal from the customer’s mobile terminal to confirm a location of the customer within the building, (2) said confirmation serving as a pre-condition to transmitting the sudden information to the customer’s mobile terminal. These features are similar to those which patentably distinguish claim 1 from the Shteyn and Johnson

patent. Accordingly, for similar reasons, it is submitted that claim 22 and its dependent claims are not rendered obvious by a combination of these patents.

For the foregoing reasons, Appellants respectfully request the Board to reverse the rejections in the outstanding Office Action.

Respectfully submitted,
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